Liverpool John Moores University

Title:	ADVANCED PAEDIATRIC VENTILATION
Status:	Definitive
Code:	**7008NPAPP** (100488)
Version Start Date:	01-08-2014
Owning School/Faculty:	Nursing and Allied Health
Teaching School/Faculty:	Nursing and Allied Health

Team	Leader
Cheryl Clarke	Y

Academic Level:	FHEQ7	**Credit Value:**	20.00	**Total Delivered Hours:**	48.50
Total Learning Hours:	200	**Private Study:**	151		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24.000
Practical	6.000
Seminar	12.000
Tutorial	6.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Case study (4000 words)	70.0	
Exam	AS2	Oral examination	30.0	0.50

Competency	Practice

Aims

To develop breadth of knowledge and advanced understanding of the principles of advanced paediatric ventilation including the advanced clinical assessment and management of neonates, infants, children and young people with ventilatory

requirements.

Learning Outcomes

After completing the module the student should be able to:

1	Critically analyse complex respiratory pathological processes among neonates, infants, children and young people.
2	Critically examine the professional, ethical and legal contexts of advanced paediatric ventilatory practice within the multi-disciplinary critical care environment.
3	Critically integrate the pathological processes, clinical assessment and best evidence in order to demonstrate advanced clinical reasoning in the management of paediatric ventilation.
4	Critically analyse the paediatric ventilatory evidence base with regard to management strategies and decision-making in the clinical setting.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Essay	1	2	3	4
EXAM	3			
Practice			3	

Outline Syllabus

Principles of respiratory physiology and mechanical ventilation
Time constants, oxygenation, CO2 removal
Principles of assisted respiratory support in neonates, infants, children and young people including:
Conventional ventilation
High frequency oscillation
Non-invasive ventilatory support/chronic respiratory support
Protective ventilation strategies: barotraumas, volutrauma
Pharmacology and pharmacokinetics: nitric oxide, surfactant, sildenafil, oxygen and inhalation anaesthetics
Applied pathophysiology and ventilatory strategies for the complex patient (e.g. IRV, CDH, PPHN, and resistance/compliance problems)
Respiratory physiotherapy
Collaborative practice in paediatric ventilation
Professional, legal and ethical issues in paediatric ventilation
Management issues in paediatric ventilatory support

Learning Activities

Interactive lectures, seminars, tutorials; on-line discussion boards; problem-based

learning exercises; evidence-based practice presentations; self-directed and reflective learning; video streaming; reflective practice; clinical supervision and case presentations.

References

Course Material	Book
Author	McCance, K. and Huether, S.
Publishing Year	2006
Title	Pathophysiology
Subtitle	The Biological Basis for Disease in Adults and Children
Edition	5th ed.
Publisher	Mosby Elsevier
ISBN	

Course Material	Book
Author	Del Mar, C., Doust, J. and Glasziou, P.
Publishing Year	2006
Title	Clinical Thinking
Subtitle	Evidence, Communication and Decision-making
Edition	
Publisher	BMJ Books
ISBN	

Course Material	Book
Author	Thompson, C. and Dowding, D.
Publishing Year	2003
Title	Clinical Decision-making and Judgement in Nursing
Subtitle	
Edition	
Publisher	Churchill Livingstone
ISBN	

Course Material	Book
Author	Khilnani, P.
Publishing Year	2006
Title	Paediatric and Neonatal Ventilation
Subtitle	
Edition	
Publisher	Jaypee Brothers Publishing
ISBN	

Course Material	Book
Author	Wheeler, D., Wong, H. and Shanley, T.
Publishing Year	2007
Title	Pediatric Critical Care Medicine
Subtitle	Basic Science and Clinical Evidence

Edition	
Publisher	Springer Verlag Publishing
ISBN	

Course Material	Book
Author	West, J.B.
Publishing Year	2007
Title	Pulmonary Pathophysiology
Subtitle	The Essentials
Edition	7th
Publisher	Lippincott, Williams and Wilkins
ISBN	

Course Material	Book
Author	West, J.B.
Publishing Year	2004
Title	Respiratory Physiology
Subtitle	The Essentials
Edition	7th
Publisher	Lippincott, Williams and Wilkins
ISBN	

Course Material	Book
Author	Pierce, L. N.
Publishing Year	2007
Title	Managment of the Mechanically Ventilated Patient
Subtitle	
Edition	2nd ed.
Publisher	Saunders Elsevier
ISBN	

Course Material	Book
Author	Heart and Lung
Publishing Year	0
Title	
Subtitle	
Edition	
Publisher	
ISBN	

Course Material	Book
Author	Paediatircs and Child Health
Publishing Year	0
Title	
Subtitle	
Edition	
Publisher	

ISBN	

Course Material	Book
Author	NEJM
Publishing Year	0
Title	
Subtitle	
Edition	
Publisher	
ISBN	

Course Material	Book
Author	Lancet
Publishing Year	0
Title	
Subtitle	
Edition	
Publisher	
ISBN	

Course Material	Book
Author	Pediatric Respiratory Reviews
Publishing Year	0
Title	
Subtitle	
Edition	
Publisher	
ISBN	

Course Material	Book
Author	Pediatric Critical Care Medicine
Publishing Year	0
Title	
Subtitle	
Edition	
Publisher	
ISBN	

Notes

The clinical experience for this module consists of 90 hours of precepted practice (pass/fail) with a relevant, registered health care professional in an appropriate clinical setting. The assessment of practice will be the responsibility of the clinical preceptor; unless competence is demonstrated in practice, credit will not be released.